

(c) Explosive articles having UN number, UN 0015, UN 0016, UN 0018, UN 0019, UN 0301, or UN 0303 may be given ordinary stowage in a lower hold or 'tween deck. Other Class 1 (explosive) materials in compatibility groups G and H may be in open stowage out to the ship's side on a floodable lower hold or deep tank in such a position that other cargo cannot be contaminated by leakage; in all other cases such Class 1 (explosive) materials must be stowed in steel portable magazines or in freight containers. If a freight container is used for this purpose, the floor of the freight container must be leakproof; for example, an all-metal container may be used and a fillet of cement or other material worked across the bottom of the door opening.

(d) Class 1 (explosive) materials stowed in one compartment may not be of more than one compatibility group, except the COTP may allow Class 1 (explosive) materials of compatibility groups G and H in separate steel portable magazines to be stowed in the same compartment, not less than 3 m (10 feet) apart.

(e) Class 1 (explosive) materials in compatibility groups K and L must be stowed in a steel magazine regardless of the stowage position in the vessel.

[Amdt. 176-30, 55 FR 52696, Dec. 21, 1990, as amended at 56 FR 66282, Dec. 20, 1991; Amdt. 176-38, 60 FR 49111, Sept. 21, 1995; 66 FR 33438, June 21, 2001; 66 FR 45185, Aug. 28, 2001]

§ 176.137 Portable magazine.

(a) Each portable magazine used for the stowage of Class 1 (explosive) materials on board vessels must meet the following requirements:

(1) It must be weather-tight, constructed of wood or metal lined with wood at least 2 cm (0.787 inch) thick, and with a capacity of no more than 3.1 cubic m (110 cubic feet).

(2) All inner surfaces must be smooth and free of any protruding nails, screws or other projections.

(3) If constructed of wood, a portable magazine must be framed of nominal 5 cm × 10 cm (2×4 inch) lumber, and sheathed with nominal 20 mm (0.787 inch) thick boards or plywood.

(4) When constructed of metal, the metal must be not less than 3.2 mm (0.126 inch) thick.

(5) Runners, bearers, or skids must be provided to elevate the magazine at least 10 cm (3.9 inches) from the deck. Padeyes, ring bolts, or other suitable means must be provided for securing.

(6) If the portable magazine has a door or hinged cover, the door or cover must have a strong hasp and padlock or equally effective means of securing.

(7) The portable magazine must be marked on its top and four sides, in letters at least 8 cm (3 inches) high, as follows:

EXPLOSIVES—HANDLE CAREFULLY—
KEEP LIGHTS AND FIRE AWAY.

(b) A portable magazine which meets the requirements for a type 2 or type 3 magazine under 27 CFR part 55 subpart K may be used for the stowage of Class 1 (explosive) materials on board vessels.

(c) A portable magazine with a capacity exceeding 3.1 m³ (110 cubic feet) may be used for the stowage of Class 1 (explosive) materials under such construction, handling, and stowage requirements as the COTP approves.

[Amdt. 176-30, 55 FR 52696, Dec. 21, 1990, as amended at 66 FR 45185, Aug. 28, 2001]

§ 176.138 Deck stowage.

(a) Class 1 (explosive) materials stowed on deck must be carried as close to the vessel's centerline as practicable.

(b) Class 1 (explosive) materials may not be stowed within a horizontal distance of 6 m (20 feet) from any fire, machinery exhaust, galley uptake, locker used for combustible stores, or other potential sources of ignition. They must be clear of walkways and cargo working areas, fire hydrants, steam pipes, and means of access; away from all other facilities necessary for the safe working of the vessel, and not less than a horizontal distance of 8 m (26 feet) from the bridge, accommodation areas, and lifesaving appliances.

(c) Where vessels are fitted with container fastening arrangements, freight containers containing Class 1 (explosive) materials may be overstored by containers of compatible Class 1 (explosive) materials or non-hazardous cargo. Where vessels are not fitted with container fastening arrangements, freight

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containers loaded with Class 1 (explosive) materials may be stowed only on the bottom tier of the stowage.

SEGREGATION

§ 176.140 Segregation from other classes of hazardous materials.

(a) Class 1 (explosive) materials must be segregated from other packaged hazardous materials in accordance with § 176.83.

(b) Class 1 (explosive) materials must be segregated from bulk solid dangerous cargoes in accordance with the General Introduction to the IMDG Code. Notwithstanding § 176.83(b), ammonium nitrate and sodium nitrate may be stowed together with blasting explosives, except those containing chlorates, provided the mixed stowage is treated as blasting explosives (see § 176.410(e)).

§ 176.142 Hazardous materials of extreme flammability.

(a) Except as allowed by paragraph (b) of this section, certain hazardous materials of extreme flammability may not be transported in a vessel carrying Class 1 (explosive) materials. This prohibition applies to the following liquid hazardous materials:

Carbon disulfide	UN1131	Class 3
Diethylzinc	UN1366	Division 4.2
Dimethylzinc	UN1370	Division 4.2
Magnesium alkyls ..	UN3053	Division 4.2
Methyl phosphonous dichloride, pyrophoric liquid.	NA2845	Division 6.1
Nickel carbonyl	UN1259	Division 6.1
Pyrophoric liquid, inorganic, n.o.s..	UN3194	Division 4.2
Pyrophoric liquids, organic, n.o.s..	UN2845	Division 4.2
Pyrophoric organometallic compound, water-reactive, n.o.s..	UN3203	Division 4.2

(b) The hazardous materials listed in paragraph (a) of this section may be transported in a vessel carrying the

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following Class 1 (explosive) materials as cargo:

(1) Division 1.4 (explosive) materials, compatibility group S.

(2) Explosive articles having the following proper shipping names and identification numbers (see column (4) of the § 172.101 table) if designed for life-saving purposes and their total net explosive mass (weight) does not exceed 50 kg (110 lbs) per vessel:

(i) ARTICLES, PYROTECHNIC: UN Nos. 0428, 0429, 0430, 0431.

(ii) CARTRIDGES, FLASH: UN Nos. 0049, 0050.

(iii) CARTRIDGES, SIGNAL: UN Nos. 0054, 0312.

(iv) SIGNAL DEVICES, HAND: UN No. 0191.

(v) SIGNALS, DISTRESS: UN Nos. 0194, 0195.

(vi) SIGNALS, SMOKE: UN Nos. 0196, 0197, 0313.

(3) Class 1 (explosive) materials in compatibility groups C, D, and E if the total net explosive mass (weight) does not exceed 10 kg (22 pounds) per vessel.

(4) Explosive articles in compatibility group G, except fireworks and Class 1 (explosive) materials requiring special stowage if the total net explosive mass (weight) does not exceed 10 kg (22 pounds) per vessel.

(c) When a vessel carrying Class 1 (explosive) materials allowed under paragraph (b) of this section also carries a hazardous material of extreme flammability, that hazardous material must be stowed in a part of the vessel as remote as practicable from the Class 1 (explosive) materials.

[Amdt. 176–30, 55 FR 52696, Dec. 21, 1990, as amended at 66 FR 33438, June 21, 2001; 66 FR 45384, Aug. 28, 2001]

§ 176.144 Segregation of Class 1 (explosive) materials.

(a) Except as provided in § 176.145 of this subpart, Class 1 (explosive) materials may be stowed within the same compartment, magazine, portable magazine, or transport unit as indicated in table 176.144(a).